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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,491	11/21/2001	Risto Kiviranta	2201-1-006	3193

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EXAMINER

SCHIFFMAN, JORI

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 11/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/991,491

Applicant(s)

KIVIRANTA ET AL.

Examiner

Jori R. Schiffman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: The titles such as "Background of the Invention", "Detailed Description of the Drawings", etc. are not present between the different sections in the specification. The application should also be further reviewed to ensure it complies with current U.S. practice since it is a translation from a foreign language. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a translation into English from a foreign document and are replete with grammatical and idiomatic errors. The claims were examined as best understood.

5. As to all claims, it is unclear whether the applicant intends to claim just the fastener or the combination of the fastener and the roller.

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6. Regarding claim 9, the term “preferably” in line 3 is indefinite because it is unclear whether there is more than one or there are three holder elements and complimentary openings in the wall.
7. In regards to claim 11, the phrase “piston type element” is indefinite because it is unclear what constitutes an element to be a “piston type element”.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. If applicant intend to claim just the fastener then claims 1, 2, and 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Duran (US 4655657).

Regarding claim 1, Duran discloses a fastener with a spindle 18 formed with a cylindrical cavity 19, having its wall provided with an opening 17, the holder element 15 being adapted to move therein between clamping and release positions, respectively protruding from the outer surface of the spindle, that the cavity is provided with a pusher 25 adapted to be movable between clamping and release positions thereof, and the pusher being formed with a thrust face 32 for the holder element 15, and a power unit 35 forcing the pusher to shift from its release position to its clamping position, the thrust face using the force of the power unit to move the holder element from its release position to its clamping position, and that the pusher is associated with a plunger 38, whereby the

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pusher is movable against the force of the power unit from its clamping position to its release position, the holder element being thus capable of shifting from its clamping position to its release position.

As to claim 2, Duran discloses the pusher having its clamping position and release position axially spaced from each other, and the thrust face 32 is at an acute angle relative to the longitudinal axis of the spindle.

Regarding claim 7, Duran discloses the acute angle between the thrust face and the longitudinal axis increase towards the distal end of the pusher, and the thrust face section with a smaller angle bears against the holder element in the clamping position of the latter.

Referring to claim 8, Duran discloses the holder element comprising a ball 15.

As to claim 9, Duran discloses the number of holder elements 14, 15 and complimentary openings 16, 17 in the wall of the cavity being more than one, spaced from each other by an angular distance.

In regards to claim 10, Duran discloses the power unit comprising a mechanical spring 35, a section of its length being fitted in a cavity established with the pusher.

Regarding claim 11, Duran discloses the cavity 19 being cylindrical and the pusher comprising a piston type element.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. If applicant intends to claim the combination of the fastener and the roller then claims 1-12 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Ross (US 1975296) in view of Duran (US 4655657).

Regarding claim 1, Ross discloses a fastener for a roller 1 rotatable about a spindle 8 and provided with a circular groove 3. Ross fails to disclose the particulars of the claimed fastener. Duran teaches a fastener with a spindle 18 formed with a cylindrical cavity 19, having its wall provided with an opening 17, the holder element 15 being adapted to move therein between clamping and release positions, respectively protruding from the outer surface of the spindle, that the cavity is provided with a pusher 25 adapted to be movable between clamping and release positions thereof, and the pusher being formed with a thrust face 32 for the holder element 15, and a power unit 35 forcing the pusher to shift from its release position to its clamping position, the thrust face using the force of the power unit to move the holder element from its release position to its clamping position, and that the pusher is associated with a plunger 38, whereby the pusher is movable against the force of the power unit from its clamping position to its release position, the holder element being thus capable of shifting from its clamping position to its release position. It would have been obvious at the time the invention was made to a person of ordinary skill in the art to replace the fastener of Ross with that disclosed in Duran so the mechanism can be connected to the roller with the holder elements 14,15, creating a more convenient and secure connection.

As to claim 2, Duran discloses the pusher having its clamping position and release position axially spaced from each other, and the thrust face 32 is at an acute angle relative to the longitudinal axis of the spindle.

Regarding claim 3, Ross discloses the spindle comprising a stationary spindle 8 and the roller 1 being provided with a bearing 10, 11.

As to claim 4, Ross discloses the spindle comprising a rotatably pivoted spindle with respect to the roller.

Referring to claim 5, modified Ross discloses the spindle 18 having an end with a reduced diameter spindle extension 18 (compared to the increased diameter portion 12) for giving the roller a preliminary alignment.

As to claim 6, Duran discloses the plunger 38 comprising a push rod, extending from the cavity and having its end provided with an extension 26 having a diameter which is smaller than the inner diameter of the inner bearing 10 of Ross.

Regarding claim 7, Duran discloses the acute angle between the thrust face and the longitudinal axis increase towards the distal end of the pusher, and the thrust face section with a smaller angle bears against the holder element in the clamping position of the latter.

Referring to claim 8, Duran discloses the holder element comprising a ball 15.

As to claim 9, Duran discloses the number of holder elements 14, 15 and complimentary openings 16, 17 in the wall of the cavity being more than one, spaced from each other by an angular distance.

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In regards to claim 10, Duran discloses the power unit comprising a mechanical spring 35, a section of its length being fitted in a cavity established with the pusher.

Regarding claim 11, Duran discloses the cavity 19 being cylindrical and the pusher comprising a piston type element.

As to claim 12, modified Ross discloses none of the components needing to be removed from the mechanism for the process of replacing the rollers and the bearing.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited further to show the state of the art with respect to roller bearings and quick-release fasteners in general: U.S. Pat. No. 6390680 to Last, U.S. Pat. No. 3097898 to Ferdig, U.S. Pat. No. 6331091 to Cross, U.S. Pat. No. 3858280 to Martens, U.S. Pat. No. 5692851 to Pace, EP 0401097 to Moreau, and JP 6264921 to Iga.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jori R. Schiffman whose telephone number is 703-305-4805.

The examiner can normally be reached on M-Th, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

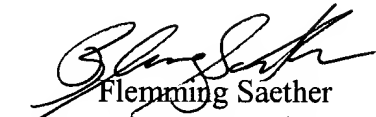


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-3179.

Jori R. Schiffman  
Examiner  
Art Unit 3679

JS  
November 14, 2002

  
Flemming Saether  
Primary Examiner